THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 41

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TARO KURODA, MOTOHISA MIYAFUJI,
KENJU MINAMOTO, MITSUHIRO OHKUBO,
ROYICHI OZAKI and AKINORI TSUCHIYA

Appeal No. 1997-2220
Application 08/250,607

HEARD: November 1, 1999

Before KIMLIN, WARREN and OWENS, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

On Request For Rehearing

Appellants request rehearing of our decision dated November 22, 1999 (Paper No. 39) affirming the examiner's rejection of claims 2, 6, 10, 11, 14, 16, 19 and 20 under 35 U.S.C. § 103 as being unpatentable over Miura in view of Hensel and of claims 15 and 17 under 35 U.S.C. § 103 as being unpatentable over Miura in view of Hensel as applied to claims 14 and 16, and further in view of Shinohara. Appellants contend that (1) our opinion includes a new ground of rejection that was not designated as such under 37 CFR § 1.196(b) (1997), and (2) that we "made various findings of fact that were clearly erroneous, and various conclusions of law that were not in accordance with law"

(request, page 1). Requests for rehearing must comply with 37 CFR § 1.197(b) (1997) which specifies that "[t]he request for rehearing must state with particularity the points believed to have been misapprehended or overlooked in rendering the decision and also state all other grounds upon which rehearing is sought."

Appellants submit, with respect to their first contention, that because the examiner did not rely on any admissions they made in their specification and did not find "that Hensel disclosed 'copper deoxidized by phosphorus,' or rely, explicitly or implicitly, on any such finding," while we included such findings in our opinion, we therefore "in effect, totally changed the rationale of the [examiner's] rejection [sic, rejections]" (request, page 2). Upon carefully reviewing the record, we cannot agree with appellants that our opinion constitutes any new ground(s) of rejection.

The predecessor court to our reviewing court set forth the general proposition that "the ultimate criterion of whether a rejection is considered 'new' in a decision by the board is whether appellants have had fair opportunity to react to the thrust of the rejection." *In re Kronig*, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-427 (CCPA 1976) ("In affirming, the board used the same basis, but without disagreeing with the examiner's approach, limited its discussion to the evidence contained" in three of the four cited references, relying thereon for the same evidence used by the examiner, such that "[h]aving compared the rationale of the rejection advanced by the examiner and the board on this record, we are convinced that the basic thrust of the rejection at the examiner and the board level was the same."); *see also In re Boon*, 439 F.2d 724, 727-28, 169 USPQ 231, 234 (CCPA 1971) (Even though the board's opinion included "amplified reasons" in support of the affirmance of the examiner's rejection that were based on "additional facts, not previously in the record, of which the board took notice[,] . . . we are satisfied from our review of the record that, even when such facts are included, the 'evidentiary scheme' supporting the board's position on this rejection does not differ in substance from that of the examiner," as "the fact so noticed plays a minor role, serving only 'to fill in the gaps' which might exist in the evidentiary showing made by the examiner . . . . [In re Ahlert, 424 F.2d 1088, 165 USPQ 418 ([CCPA] 1970)]. Under such circumstances, as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion," which challenge must "contain adequate information or

argument so that on its face it creates a reasonable doubt regarding the circumstances justifying the judicial notice."); *cf. In re Hedges*, 783 F.2d 1038, 1039-40, 228 USPQ 685, 686 (Fed. Cir. 1986) ("In Hedges' case the Solicitor referred to new portions of the references cited by Hedges during examination for further support of the same rejection that had been upheld by the Board. Hedges had relied on these references before the Board, as he does before us, for his argument that viewed as a whole the body of the prior art teaches away from conducting this reaction at high temperatures. The Solicitor should not be constrained from pointing to other portions of these same references in contravention of Hedges' position.").

The court in *Kronig* distinguished, *inter alia*, *In re Waymouth*, 486 F.2d 1058, 179 USPQ 627 (CCPA 1973), on its facts. 539 F.2d at 1303, 190 USPQ at 427. In *Waymouth*, relied on by appellants (request, pages 4-5), the court found that

> the prosecution history of this application clearly shows that the examiner was only concerned with an alleged failure to disclose sodium iodide. However, after finding for appellants on this issue, the board proceeded to sustain the rejection on a wholly different basis. Although the same phrase . . . was questioned by both the examiner and the board, the bases of their rejections were wholly different, necessitating different responses by appellants. [486 F.2d at 1060-61, 179 USPQ at 629.]

Based on these facts, in the passage of the opinion quoted by appellants in this case (request, pages 4-5), the court found that "to deny appellants an opportunity to provide a different and appropriate response to the board's rejection . . . does not satisfy the administrative due process established by Rule 196(b)." 486 F.2d at 1061, 179 USPQ at 629.

In our prior opinion, we agreed with the examiner's rationale, which may be summarized as set forth by appellants (request, page 2). Indeed, and more particularly, the examiner relies on Hensel's disclosure of the ranges of manganese and phosphorous content for the copper base alloys taught therein, pointing to the disclosure of the corrosion resistance, thermal conductivity and solderability of the alloy in holding that "it would have been obvious to use such an alloy for fabrication of heat exchanger tubes" (answer, page 4). The examiner responds to appellants' arguments in their principal brief by finding that the applied

> prior art references establish clearly that: 1) The use of corrosion resistant copper to make heat exchanger tubes is known in the art, and 2) that copper alloys containing small amounts

> of manganese and phosphorous are known, and are known to be corrosion resistant, have good thermal conductivity, and be readily solderable. [*Id*., page 7.]

In further response to appellants' arguments in their principal brief, the examiner makes the following two statements with respect to Hensel. At pages 9-10 of the answer:

> Switching one known corrosion resistant copper alloy for another is a substitution of known equivalents which would be well within the level of ordinary skill in the art. Indeed, if one constructed a "shopping list" of properties necessary for a suitable alloy which could be used to make heat exchanger tubes, one could hardly do better than the properties of anticorrsiveness, easy solderability, and good thermal conductivity which Hensel et al. ascribe to their alloy.
>
> As has been pointed out previously, applicants are not claiming a novel compound, but rather a narrow range of percentages of ingredients within the broader ranges disclosed in Hensel et al. It is considered obvious to determine optimum concentrations and/or ranges of ingredients, provided the prior art teaches the 'general conditions of a claim', [sic] in this case the basic ingredients and general proportions are taught in Hensel et al. [*Id*., pages 10-11.]

And, at page 13 of the answer:

> In this case, Hensel et al. *do* teach controlling the percentages of both phosphorous and manganese within certain ranges. There are [sic] is nothing which must be "read into" Hensel et al. . . . to create the implication that Hensel et al. teach controlling the respective ratios of phosphorous, manganese, and copper to produce the desired alloy of "improved characteristics" including those listed previously; it is right there on page 1 of Hensel et al. If Hensel et al. did not believe phosphorous and manganese content to be "result effective" variables, they would not have stipulated utilizing a limited range of percentages of these additives.

Thus, it is clear from the answer, in both the statement of the rejections and in response to appellants' arguments in their principal brief, that the examiner was relying on the copper based alloy and the ranges and ratios of manganese and phosphorous contained therein to achieve the properties of corrosion resistant, thermal conductivity, solderability taught at least "right there on page 1 of Hensel et al." (answer, page 13). Indeed, it is apparent from appellants' principal brief that they argue the ranges and ratios of the same two ingredients as well as the same or similar properties of their claimed copper alloys, as disclosed in their specification (principal brief, e.g., pages 7-8), vis-à-vis the copper alloys as taught in Hensel with respect to Hensel alone and as combined with Miura (principal brief, pages 6-10). Appellants then allege that the specification Examples and Comparative Examples show the criticality of

the claimed phosphorous parameters pointing to specification Table 1 (*id*., pages 10-12). Appellants submit similar arguments with respect to separately argued claims (*id*., pages 12-18). Appellants reply in their reply brief, filed April 23, 1998 (Paper No. 26) to the examiner's response to their arguments in the principal brief that we cite above.

It is readily apparent from appellants' specification that it contains the admissions that we found therein and/or took notice based thereon coupled with the teachings of the applied references (decision, pages 3-5), and they have not disputed our findings in this respect. Indeed, it is readily apparent that the entire thrust of appellants' specification is based on their admission that as compared to "copper deoxidized by phosphorus . . .widely used for the conventional refrigerant tube or conventional heat exchanger tube," which is subject to "ant-nest type corrosion" (pages 1-2), and to "phosphorous deoxidized copper" used with fin-tube exchangers because of "thermal conductivity and corrosion resistance" (page 3), the claimed "phosphorus deoxidized copper" alloy has "superior corrosion resistance," including "ant-nest type corrosion" (pages 2, 4, 5, 6, 7, 8, 9 and 10), "superior . . . brazing properties" (pages 2, 4, 5, 10, 12 and 13) and "thermal conductivity resistance" (page 8). This theme of an improvement in properties over prior art tubes prepared from known phosphorous deoxidized copper alloys is continued in the comparison of claimed phosphorous deoxidized copper alloys with apparently known, prior art phosphorous deoxidized copper alloys with respect to the properties of resistance to "ant-nest type corrosion" and "brazing" in the specification Examples and Comparative Examples (e.g., specification Table 1).

It is readily apparent that the properties that appellants disclose in their specification to distinguish the claimed phosphorus deoxidized copper alloys from the admittedly known phosphorous deoxidized copper alloys are the same or similar properties that the examiner finds in the alloys of Hensel, which alloys he further finds to have the same or similar ranges of amounts of manganese and phosphorus. Thus, while we recognized the thrust of appellants' disclosure as admitting the state of the prior art at the time the claimed invention was made in our original opinion, it is apparent therefrom that the ranges and ratios of manganese and phosphorus of the copper alloys shown in Hensel and the properties thereof taught by the reference as relied on by the examiner was indeed the basis for the grounds of rejection. *See In re Davis*, 305 F.2d 501, 503, 134 USPQ 256, 258 (CCPA 1962).

We note in this respect that while appellants admitted that phosphorous deoxidized copper alloys were known for heat exchangers, the only ratios of ingredients of such alloys which may be gleaned from appellants' specification were disclosed in the specification Comparative Examples (see, e.g., Table 1). *Cf. In re Nomiya*, 509 F.2d 566, 570-71, 184 USPQ 607, 611 (CCPA 1975). However, it is apparent from our opinion (decision, e.g., pages 5-7) that we relied on the teachings of Hensel as relied on by the examiner in this respect, and *not* on the alloys of the Comparative Examples in affirming the examiner's grounds of rejection.

Moreover, appellants in their arguments in the principal brief (pages 7-8) relied on the recitation of certain problems and of "better" ant-nest corrosion resistance and brazing properties with respect to known phosphorous deoxidized copper alloy tubes set forth in the specification, and thus they were not placed at any disadvantage by our recognition of the admitted state of the art that they considered so significant as to frame their application and evidence of non-obviousness in that regard. And, indeed, appellants continue to rely on such admissions in the present request wherein appellants state in their argument advanced in point "4," "[i]n view of the Board's reliance on Appellants' so-called admitted state of the art, it is submitted that the closest prior art is the conventional phosphorous deoxidized copper tubes used in the prior art in heat exchangers of the type disclosed herein" *Cf. Hedges*, *supra*. In this respect, we are unconvinced by appellants' argument (request, page 6) that our consideration of appellants' admissions in the specification in responding to an argument advanced by appellants based on the zinc content of the alloys of Miura in comparison to the alloys of Hensel is indicative of a new ground of rejection.

Furthermore, as stated by appellants, we did find that Hensel, in the second col., lines 7-11, would have disclosed to one of ordinary skill in this art that when phosphorous is used in a slight excess, phosphorous deoxidized copper alloys are obtained (decision, page 5) and thereafter cited that disclosure in considering the examiner's grounds of rejection. However, as we noted above, this reference, as relied on by the examiner, teaches the copper based alloy and the ranges and ratios of manganese and phosphorous contained therein to achieve the properties of corrosion resistant, thermal conductivity, solderability at least "right there on page 1" (answer, page 13). Thus, one of ordinary skill in this art routinely following the teachings of at least page 1 of Hensel would have arrived at

phosphorous deoxidized copper alloys. Therefore, we did no more in our opinion than further note the teachings of Hensel with some additional particularity.

Thus, upon reconsidering our decision to affirm the examiner's grounds of rejection in light of appellants' arguments advanced in their request, we cannot discern that we have changed the thrust of the examiner's grounds of rejection, or, in other words, the evidentiary scheme that we have described in our opinion with the amplified reasoning set forth therein based on *facts of record* does not differ in substance from that set forth by the examiner in his answer. Indeed, it is apparent from appellants' evidence of nonobviousness based on Comparative Examples of phosphorous deoxidized copper alloys and the other arguments set forth in their principal and reply briefs, that they had ample "fair opportunity" to react to the thrust or evidentiary scheme of the rejections based on Hensel even in view of our opinion. *Kronig*, *supra*; *cf*. *Boon*, *supra*; *Waymouth*, *supra*. We note in this respect that while appellants did advance the argument that Hensel does "not disclose restricting the oxygen amount to less than or equal 100 ppm" (principal brief, page 8), they also relied on Comparative Examples containing an amount of oxygen in this range as evidence of nonobviousness with respect to the teachings of the applied prior art as we observed above.

We have not overlooked appellants' argument that manganese deoxidized copper rather than phosphorous deoxidized copper would be formed following the disclosure of Hensel at col. 2, lines 7-11 (request, page 5). In support of their argument, appellants submit the attachment to the request *without* explaining the significance thereof with respect to their argument vis-à-vis the cited disclosure in Hensel:

> A slight excess of phosphorous above the amount required to form the intermetallic compound of manganese phosphide with the manganese will ordinarily serve as a deoxidizing agent during the production of the alloy.

The difficulty that we have with appellants' argument as supported is that it reasonably would have appeared to one of ordinary skill in this art that in following the cited teaching of Hensel there would have been little, if any, manganese to serve as the deoxidizing agent, thus leaving that function to the "slight excess of phosphorous" available for that purpose. We note that it is well settled that the burden of establishing the significance of evidence in the record, with respect to unexpected results or

for other purposes, rests with appellants, which burden is not carried by mere arguments of counsel. *See generally In re Geisler*, 116 F.3d 1465, 1470, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997); *In re Huang*, 100 F.3d 135, 140, 40 USPQ2d 1685, 1689-90 (Fed. Cir. 1996); *In re Merck & Co.*, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986); *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-52 (Fed. Cir. 1985); *In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972); *In re Borkowski*, 505 F.2d 713, 718, 184 USPQ 29, 33 (CCPA 1974).

Accordingly, because we do not agree with appellants that our original opinion "in effect, totally changed the rationale of the [examiner's] rejection [sic, rejections]" (request, page 2), we decline to designate our affirmance of the examiner's grounds of rejection as new grounds of rejection under 37 CFR § 1.196(b) (1997).

We now consider the seven "points of error" (request, pages 6-10) presented in support of appellants' second contention that in our original opinion, we "made various findings of fact that were clearly erroneous, and various conclusions of law that were not in accordance with law" (request, page 1). Upon carefully reviewing each of the "points of error," we cannot agree with appellants that we made any erroneous findings of fact or conclusions of law.

We fail to find any statement made with respect to appellants' point "1" (request, page 6) involving "corrosion" which sets forth any fact that we may have misapprehended or overlooked in reaching our decision. Indeed, merely stating that we have "improperly combined . . . disparate disclosures of corrosion" does not address the manner in which we considered this issue in our original opinion.

We have adequately addressed appellants' point "2," which concerns the teachings at col. 2, lines 7-11, of Hensel (request, pages 6-7), in our consideration of essentially the same argument above (*see supra* p. 7).

In their point "3," appellants reiterate arguments made in their principal brief (pages 6-9) that Hensel is non-analogous art because the disclosure thereof with respect to "corrosion" is not specific to "ant-nest corrosion" (request, page 8). We continue to find ourselves in agreement with the examiner that such arguments are unpersuasive for the reasons set forth in our original opinion (decision, pages 7-9).

We cannot determine from appellants' statements with respect to point "4" (request, page 8) the difficulty with our recognition of the importance of Hensel in our original decision. Indeed, it is apparent from the answer that the examiner considered this reference of record to disclose the alloys specified in the appealed claims and we agreed with his conclusion. Appellants' have submitted no evidence or pointed to any Comparative Example in support of their contention that "conventional phosphorous deoxidized copper tubes" rather than the alloys of Hensel constitute the closest prior art.

With respect to appellants' point "5" (pages 8-10), we have again considered appellants' arguments presented at pages 12 to 13 of the principal brief which refer to "page 25, line 18 through page 32, line 13" of the specification, but fail to find therein any argument with respect to the reaction conditions for the formation of the oxide film specified in appealed claim 10 as disclosed at page 29, lines 14-16, of the specification. Instead, the passage of the specification cited in the principal brief is relied on therein to show "criticality with respect to" limitations in claim 10 as set forth by the cited Examples and Comparative Examples in Table 3 which are alleged to "amply [demonstrate] that the properties recited in Claim 10 are not inherent in the alloy disclosed in [Hensel], contrary to the finding by the Examiner" (pages 12-13). Because appellants' argument with respect to point "5" is presented for the first time in the request and was not presented in the principal or reply briefs, and thus the examiner has not had the opportunity to consider the same, it is untimely and not properly before us. *See Ex parte Hindersinn*, 177 USPQ 78, 80 (Bd. App. 1971).

We have carefully considered appellants' points "6" and "7" (request, page 10), but find no persuasive argument therein necessitating any change in our opinion.

Accordingly, we have carefully considered the arguments advanced by appellants in their request for rehearing but, for the reasons given above, we decline to designate our affirmance of the examiner's grounds of rejection as new grounds of rejection under 37 CFR § 1.196(b) (1997), and are unconvinced that our opinion contains any erroneous findings of fact or conclusions of law. Thus, we decline to make any changes in our prior decision.

Therefore, we remain of the view that claims 2, 6, 10, 11, 14, 16, 19 and 20 are unpatentable under 35 U.S.C. § 103 over Miura in view of Hensel and that claims 15 and 17 are unpatentable under

35 U.S.C. § 103 over Miura in view of Hensel as applied to claims 14 and 16, and further in view of Shinohara as stated in our original decision.

We have granted appellant's request to the extent that we have reconsidered our decision of November 22, 1999, but we deny the request with respect to making any changes therein.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

DENIED

EDWARD C. KIMLIN Administrative Patent Judge	)	
CHARLES F. WARREN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
TERRY J. OWENS Administrative Patent Judge	)	

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